

## PENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 633	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/DK 03/00718	International filing date (day/month/year) 23/10/2003	(Earliest) Priority Date (day/month/year) 23/10/2002
Applicant LEO PHARMA A/S		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :

contained in the international application in written form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

**2.  Certain claims were found unsearchable (See Box I).**

**3.  Unity of invention is lacking (see Box II).**

**4. With regard to the title,**

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. The figure of the drawings to be published with the abstract is Figure No.**

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

None of the figures.

**INTERNATIONAL SEARCH REPORT**International application No.  
PCT/DK 03/00718**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: **18-21** because they relate to subject matter not required to be searched by this Authority, namely:  
Claims 18-21 relate to methods of treatment of the human or animal body by therapy (PCT Rule 39.1(iv)). Nevertheless, a search has been executed for these claims. The search has been based on the alleged effects of the compounds or compositions.
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP/00718

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 C07C401/00 A61K31/59 A61P5/20

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07C A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category <sup>a</sup>	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 95 02577 A (LEO PHARM PROD LTD ;GRUE SOERENSEN GUNNAR (DK)) 26 January 1995 (1995-01-26) the whole document ---	1-23
X	WO 91 00855 A (LEO PHARM PROD LTD) 24 January 1991 (1991-01-24) the whole document ---	1-23
X	B. L. ONISKO ET AL : "Synthesis of potential vitamin D antagonists" TETRAHEDRON LETTERS, vol. 18, no. 13, 1977, pages 1107-1108, XP002271061 the whole document ---	1-23 -/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

<sup>a</sup> Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

20 February 2004

25.03.2004

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/03/00718

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	MALUCHE HH ET AL: "Update on vitamin D and its newer analogues: actions and rationale for treatment in chronic renal failure" KIDNEY INT., vol. 62, no. 2, August 2002 (2002-08), pages 367-374, XP002271062 the whole document -----	1-23

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No

PCT/.../3/00718

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
WO 9502577	A 26-01-1995	AT AU AU CA CN DE DE WO EP ES FI JP NZ RU US	165346 T 690564 B2 7182994 A 2162040 A1 1125941 A ,B 69409811 D1 69409811 T2 9502577 A1 0708755 A1 2117281 T3 956108 A 8512327 T 268567 A 2130926 C1 5716945 A	15-05-1998 30-04-1998 13-02-1995 26-01-1995 03-07-1996 28-05-1998 07-01-1999 26-01-1995 01-05-1996 01-08-1998 19-12-1995 24-12-1996 24-11-1997 27-05-1999 10-02-1998
WO 9100855	A 24-01-1991	AT AU AU CA DE DE WO DK EP ES FI IE JP JP KR NZ PH US ZA	112556 T 630227 B2 6156390 A 2057048 A1 69013155 D1 69013155 T2 9100855 A1 482100 T3 0482100 A1 2064749 T3 93724 B 902317 A1 2807087 B2 4506965 T 195547 B1 234326 A 27301 A 5190935 A 9005094 A	15-10-1994 22-10-1992 06-02-1991 11-01-1991 10-11-1994 09-03-1995 24-01-1991 07-11-1994 29-04-1992 01-02-1995 15-02-1995 16-01-1991 30-09-1998 03-12-1992 15-06-1999 26-03-1993 04-05-1993 02-03-1993 24-04-1991